

REMARKS

Justification for the amendments is as follows. Claims 2, 3, and 11-13 are canceled above, and claims 1, 4-10, and 14-18 are pending.

The amendment to the specification at pages 35 through 43 of the specification replaces the Sequence Listing as filed with the Substitute Sequence Listing filed December 11, 1997, in prior U.S. application Serial No. 08/567,508, and referenced in the filing papers for the present application. (See page 1 of the transmittal for the present application.) The Substitute Sequence Listing properly identifies the MUSPTK1 sequence, described at page 5 of the specification and shown in Figures 2A, 2B, 2C, 2D, 2E, and 2F as originally filed, as SEQ ID NO:3, and identifies sequences XLR and XLF, which appear at page 21 of the specification as originally filed, as SEQ ID NO:4 and SEQ ID NO:5, respectively. These sequences do not constitute new matter as MUSPTK1, XLR, and XLF appear in the application as filed.

The Substitute Sequence Listing corrects an error in SEQ ID NO:2 in the Sequence Listing as originally filed. Specifically, the latter part of SEQ ID NO:2, starting around residue 990, appears to have been incorrectly translated. However, SEQ ID NO:2 was correct as shown in Figures 1A, 1B, 1C, 1D, 1E, and 1F as filed. Accordingly, SEQ ID NO:2 as it appears in the Substitute Sequence Listing accompanying this Amendment is correct. This corrected sequence is not new matter as the correct sequence was shown in Figures 1A, 1B, 1C, 1D, 1E, and 1F of the application as filed. Applicants apologize for any inconvenience that might have been caused by this error. Applicants note that SEQ ID NO:1 was correct in the application as filed in both Figures 1A, 1B, 1C, 1D, 1E, and 1F and in the Sequence Listing.

The amendments to the specification at page 5, lines 2 and 6, and page 20, line 24, are made to reflect the renumbering of the figures in the preparation of formal drawings. The remaining amendments to the specification are merely typographical or grammatical in nature.

The amendments to the drawings were made to clarify Figures 2A, 2B, 2C, 2D, and 2E, and 2F. Specifically, Figures 2A, 2B, 2C, 2D, 2E, and 2F as originally filed showed the alignment between HJAK2 (SEQ ID NO:2) and MUSPTK1 (GI 409584; SEQ ID NO:3), along with two consensus sequences generated by DNASTAR software, the multisequence alignment program used. Figures 2A, 2B, 2C, 2D, 2E, and 2F as amended show only the alignment

between HJAK2 (SEQ ID NO:2) and MUSPTK1 (GI 409584; SEQ ID NO:3).

No new matter is added by any of these amendments.

If there are any questions regarding the above, the Examiner is invited to call Applicants' Agent at (650) 855-0555.

Respectfully submitted,

INCYTE PHARMACEUTICALS, INC.

Date: December 9, 1999

Susan K. Sather

Susan K. Sather

Reg. No. 44,316

Direct Dial Telephone: (650) 845-4646

3174 Porter Drive
Palo Alto, California 94304
Phone: (650) 855-0555
Fax: (650) 849-8886

~~M G N A C L T M T E M E T S T S . . . Q N G D I . G . A N~~
~~M G M A C L T M T E M E G T S T S S V H Q N G D I S G S A N~~
10 20 30
1 **M G M A C L T M T E M E A T S T S P V H Q N G D I P G S A N**
1 **M G M A C L T M T E M E G T S T S S I Y Q N G D I S G N A N**

~~S . X Q I . P V L Q V Y L Y H S L G . . . E . . . Y L . F P S G~~
~~S V K Q I D P V L Q V Y L Y H S L G Q A E G D Y L T F P S G~~
40 50 60
31 **S V K Q I E P V L Q V Y L Y H S L G Q A E G E Y L K P P S G**
31 **S M K Q I D P V L Q V Y L Y H S L G K S E A D Y L T F P S G**

~~E Y V . E E I C . A A S K A C G I T P V Y H N M F A L M S E~~
~~E Y V G E E I C V A A S K A C G I T P V Y H N M F A L M S E~~
70 80 90
61 **E Y V A E E I C V A A S K A C G I T P V Y H N M F A L M S E**
61 **E Y V G E E I C I A A S K A C G I T P V Y H N M F A L M S E**

~~T E R I W Y P P N H V F H I D E S T R H . . . L Y R I R F Y F~~
~~T E R I W Y P P N H V F H I D E S T R H D V L Y R I R F Y F~~
100 110 120
91 **T E R I W Y P P N H V F H I D E S T R H D I L Y R I R F Y F**
91 **T E R I W Y P P N H V F H I D E S T R H N V L Y R I R F Y F**

~~P . W Y C S G S . R . Y R . G . S R G A E A P L L D D F V M~~
~~P H W Y C S G S S R A Y R H G V S R G A E A P L L D D F V M~~
130 140 150
121 **P H W Y C S G S S R T Y R Y G V S R G A E A P L L D D F V M**
121 **P R W Y C S G S N R A Y R H G I S R G A E A P L L D D F V M**

~~S Y L F . Q W R H D F V H G W I K V P V T H E T Q E E C L G~~
~~S Y L F A Q W R H D F V H G W I K V P V T H E T Q E E C L G~~
160 170 180
151 **S Y L F V Q W R H D F V H G W I K V P V T H E T Q E E C L G**
151 **S Y L F A Q W R H D F V H G W I K V P V T H E T Q E E C L G**

~~M . V L D M M R I A K E . D Q T P L A . Y N S . S Y K T F L~~
~~M A V L D M M R I A K E N D Q T P L A V Y N S V S Y K T F L~~
190 200 210
181 **M A V L D M M R I A K E K D Q T P L A V Y N S V S Y K T F L**
181 **M T V L D M M R I A K E N D Q T P L A I Y N S I S Y K T F L**

FIGURE 2A

~~P C RAKIQDYHILTRKRIRYRFRRFIQQF~~
~~PQCVRAKIQDYHILTRKRIRYRFRRFIQQF~~
220 230 240
211 **PKCVRAKIQDYHILTRKRIRYRFRRFIQQF**
211 **PQCI RAKIQDYHILTRKRIRYRFRRFIQQF**
~~SQCKATARNLKLKYLINLETLOSIFYTE F~~
~~SQCKATARNLKLKYLINLETLOSIFYTEQF~~
250 260 270
241 **SQCKATARNLKLKYLINLETLOSIFYTEQF**
241 **SQCKATARNLKLKYLINLETLOSIFYTEKF**
~~EVKE . . . GPSGEEIFATIIITGNGGIQWSR~~
~~EVKESGSGGPSGEEIFATIIITGNGGIQWSR~~
280 290 300
271 **EVKESARGPSGEEIFATIIITGNGGIQWSR**
271 **EVKEPGSGGPSGEEIFATIIITGNGGIQWSR**
~~GKHKESETLTEQD QLYCDFP IIDVSIKQ~~
~~GKHKESETLTEQDVQLYCDFPD IIDVSIKQ~~
310 320 330
301 **GKHKESETLTEQDVQLYCDFPD IIDVSIKQ**
301 **GKHKESETLTEQDLQLYCDFPN IIDVSIKQ**
~~ANQE SNESR VT HKQDGK LEIELSSL~~
~~ANQEGSNESRVVTVHKQDGKVLEIELSSLK~~
340 350 360
331 **ANQEC SNESRIVTVHKQDGKVLEIELSSLK**
331 **ANQEGSNESRVVTIHKQDGKNLEIELSSLR**
~~EALSFVSLIDGYRRLTADAHHYLCKEVAPP~~
~~EALSFVSLIDGYRRLTADAHHYLCKEVAPP~~
370 380 390
361 **EALSFVSLIDGYRRLTADAHHYLCKEVAPP**
361 **EALSFVSLIDGYRRLTADAHHYLCKEVAPP**

FIGURE 2B

~~AVLENI SNCHGPISMDFAISKLLKAGNOT~~
~~AVLENIQSNCHGPISMDFAISKLLKAGNOT~~
 400 410 420
 391 **AVLENIH SNCHGPISMDFAISKLLKAGNOT**
 391 **AVLENIQ SNCHGPISMDFAISKLLKAGNOT**
~~GLYVLRCS PKDFN KYFLTF AVEREN VIEYK~~
~~GLYVLRCS PKDFN KYFLTF AVEREN VIEYK~~
 430 440 450
 421 **GLYVLRCS PKDFN KYFLTF AVEREN VIEYK**
 421 **GLYVLRCS PKDFN KYFLTF AVEREN VIEYK**
~~HCLITKNEN EYNLSGT NPS LKDLLNC~~
~~HCLITKNENGEYNLSGTNKNPSSSLKDLLNC~~
 460 470 480
 451 **HCLITKNENGEYNLSGTNRNPSNLKDLLNC**
 451 **HCLITKNENGEYNLSGTKKNPSSLKDLLNC**
~~YQMETVRS DSIIFQFTKCCPPKPKDKSNLL~~
~~YQMETVRS DSIIFQFTKCCPPKPKDKSNLL~~
 490 500 510
 481 **YQMETVRS DSIIFQFTKCCPPKPKDKSNLL**
 481 **YQMETVRS DSIIFQFTKCCPPKPKDKSNLL**
~~VPR TNG SDV SPTLQR HNNV NOMVPHKI~~
~~VPR TNGVSDVPT SPTLQRPTHM NOMVPHKI~~
 520 530 540
 511 **VPR TNGI SDVQI SPTLQRHNNV NOMVPHKI**
 511 **VPR TNGVSDVPT SPTLQRPTHM NOMVPHKI**
~~RNEDLIFNESLGQGTFTKIFKGVRRREVGDY~~
~~RNEDLIFNESLGQGTFTKIFKGVRRREVGDY~~
 550 560 570
 541 **RNEDLIFNESLGQGTFTKIFKGVRRREVGDY**
 541 **RNEDLIFNESLGQGTFTKIFKGVRRREVGDY**
~~GQLH TEVLLKVL DKAHRNYSSESFFEAASM~~
~~GQLHETEVL LKVL DKAHRNYSSESFFEAASM~~
 580 590 600
 571 **GQLHETEVL LKVL DKAHRNYSSESFFEAASM**
 571 **GQLHETEVL LKVL DKAHRNYSSESFFEAASM**

FIGURE 2C

MS LSHKHLVLNYGVGVCG ENILVQEFVK
MSQLSHKHLVLNYGVGVCGDENILVQEFVK

610 620 630

601 MSQ LSHKHLVLNYGVGVCGE ENILVQEFVK
601 MSK LSHKHLVLNYGVGVCGD ENILVQEFVK

FGSLDTYLLKKNNKNIINILWKL VAKQLAWA
FGSLDTYLLKKNNKNSINILWKLGVAKQLAWA

640 650 660

631 FGSLDTYLLKKNNKNS INILWKLGVAKQLAWA
631 FGSLDTYLLKKNNKNC INILWKLGVAKQLAWA

MHFLEE LIHGNVCAKNILLIREEDR TG
MHFLEENSLIHGNVCAKNILLIREEDRKTG

670 680 690

661 MHFLEE KSLIHGNVCAKNILLIREEDRRTG
661 MHFLEEN TLIHGNVCAKNILLIREEDRKTG

NPPFIKLSDPGISITVLPKDILOERIPWVP
NPPFIKLSDPGISITVLPKDILOERIPWVP

700 710 720

691 NPPFIKLSDPGISITVLPKDILOERIPWVP
691 NPPFIKLSDPGISITVLPKDILOERIPWVP

PECIENPKNLNLATDKWSFGTTLWEICSGG
PECIENPKNLNLATDKWSFGTTLWEICSGG

730 740 750

721 PECIENPKNLNLATDKWSFGTTLWEICSGG
721 PECIENPKNLNLATDKWSFGTTLWEICSGG

DKPLSALDSQRKLQFYED HQLPAPKW EL
DKPLSALDSQRKLQFYEDKHQLPAPKW AEL

760 770 780

751 DKPLSALDSQRKLQFYED K HQLPAPKW TEL
751 DKPLSALDSQRKLQFYED R HQLPAPKW AEL

ANLINNCMDYEPDFRP FRA I RDLNSLFT
ANLINNCMDYEPDFRP AFRAV I RDLNSLFT

790 800 810

781 ANLINNCMDYEPDFRP AFRAV I RDLNSLFT
781 ANLINNCMDYEPDFRP S PRA I RDLNSLFT

FIGURE 2D

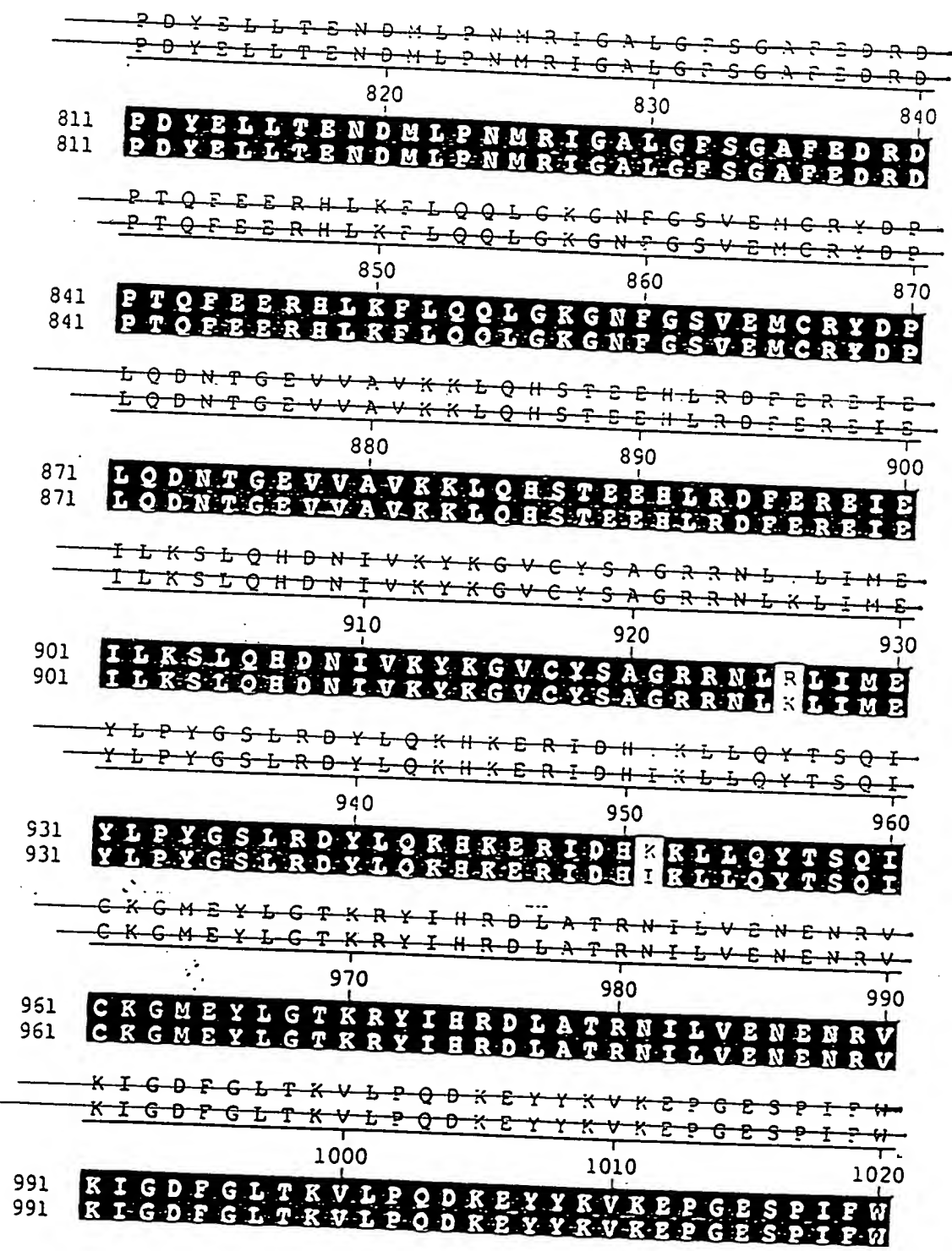


FIGURE 2E

~~YAP SLTESKFSVASDVWSFGVVLYELFTY~~
~~YAPESLTESKFSVASDVWSFGVVLYELFTY~~

1030 1040 1050
1021 **YAPQSLTESKFSVASDVWSFGVVLYELFTY**
1021 **YAPE SLTESKFSVASDVWSFGVVLYELFTY**

~~IEKSKSPP EFMRMIGNDKQGQMIVFHLIE~~
~~IEKSKSPPAEFMRMIGNDKQGQMIVFHLIE~~

1060 1070 1080
1051 **IEKSKSPPV EFMRMIGNDKQGQMIVFHLIE**
1051 **IEKSKSPPA EFMRMIGNDKQGQMIVFHLIE**

~~LLKNGRLPRPGCPDEIY IMTECWNNNV~~
~~LLKSNGR LPRPDGCPDEIYVIMTECWNNNV~~

1090 1100 1110
1081 **LLKSNGRLPRPEGCPDEIYVIMTECWNNNV**
1081 **LLKNNGRLPRPDGCPDEIYMIMTECWNNNV**

~~QRPSFRDL I~~
~~SQRPSFRDLALRVGQIKDGTAG~~

1120 1130
1111 **SQRPSFRDL** SF - - GW **I** KCGTV
1111 **NORPSFRDL** ALRV DQ **I** RDNMAG

FIGURE 2F